REMARKS

Claims 1 and 3-9 are presented for consideration, with Claims 1 and 7 being independent.

Editorial changes have been made to the specification. In addition, a new abstract is being submitted to better set forth technical aspects of the claimed invention.

Claim 1 has been amended to further distinguish Applicants' invention from the cited art. In addition, editorial changes have been made to Claims 1 and 7. Support for the amendments can be found, for example, on page 11, line 26 through page 12, line 7 of the specification.

Initially, Claim 7 stands rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. In response to this rejection, Claim 7 has been amended to more particularly and distinctly set forth the claimed subject matter. Reconsideration and withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

Claims 1, 2, 6 and 8 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Blubaugh '993 in view of Dillon '125. Claims 1, 2 and 6-8 stand rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Loureiro '121. Claims 1-4 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by either Lu '669 or Iyer '480. Claim 10 is rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Yoshioka '382. Claims 5 and 7 stand rejected under 35 U.S.C. §103 as allegedly being obvious over Iyer. Finally, Claim 9 stands rejected as allegedly being obvious over Blubaugh in view of Dillon. These rejections are respectfully traversed.

Applicants' invention as set forth in Claim 1 relates to a mesoporous silica structure having a plurality of mesopores. The structure includes a dendritic framework having mesopores. As amended, 90% or more of the mesopores observable in a 500 nm × 5000 nm area pass through the framework in a direction perpendicular to a longitudinal direction of the framework.

In accordance with Applicants' claimed invention, a high performance mesoporous silica structure can be provided.

The Blubaugh patent relates to a glucose sensor that includes an outer membrane 12 and an enzyme containing membrane 14 (see Figure 1). The enzyme containing membrane comprises a semi-interpenetrating polymer network made of fibrillated PTFE.

The Dillon patent relates to a process of producing a fibrillated semi-interpenetrating polymer network and is relied on for its teaching of a dendritic framework.

In contrast to Applicants' invention, however, neither Blubaugh nor Dillon provide a mesoporous silica structure as now set forth in Claim 1. These citations also fail to teach or suggest, among other features, 90% or more of the mesopores observable in a prescribed area passing through the framework in a direction perpendicular to the longitudinal direction of the framework.

Accordingly, without conceding the propriety of combining Blubaugh and Dillon in the manner proposed in the Office Action, it is submitted that such a combination still fails to teach or suggest Applicants' invention as set forth in Claim 1.

The Loureiro publication discloses mesoporous silicate structures formed in a dendritic framework. The Office Action indicates that the mesopores are randomly distributed.

The Lu patent relates to a process for preparing metal containing nanostructured films. The films are prepared by electrodepositing a metal-containing composition within pores of a mesoporous silica template in order to form a metal-containing silica nanocomposite.

The Iyer patent discloses the use of mesoporous silica as a sample holder for desorption/ionization mass spectrometry. Figure 1 shows a mesoporous silica structure as an ordered cubic array of interconnected pores.

It is respectfully submitted, however, that the cited art to Loureiro, Iyer and Lu all fail to teach or suggest, among other features, a dendritic framework wherein 90% or more of mesoporous available in a 500 nm × 500 nm area pass through the framework in a direction perpendicular to a longitudinal direction of the framework, as set forth in Claim 1. Accordingly, reconsideration and withdrawal of the rejections of independent Claim 1 in view of these citations is respectfully requested.

Reconsideration and withdrawal of dependent Claims 5 and 9 under 35 U.S.C. §103 is deemed to be in order in view of the comments above with respect to parent Claim 1.

Claim 7 as now set forth includes the features of Claim 1 and is thus also submitted to be allowable for the reasons discussed above. Accordingly, reconsideration and withdrawal of the rejection of Claim 7 under 35 U.S.C. §103 is respectfully requested.

Thus, it is submitted that Applicants' invention as set forth in independent Claims 1 and 7 is patentable over the cited art. In addition, dependent Claims 2-6, 8 and 9 set forth additional features of Applicants' invention. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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